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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,988	06/20/2003	Raul-Adrian Cermea	SNDK.157US0	7129
7590	06/29/2004		EXAMINER	
PARSONS HSUE & DE RUNTZ LLP SUITE 1800 655 MONTGOMERY STREET SAN FRANCISCO, CA 94111			TRAN, MICHAEL THANH	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/600,988	CERMEA, RAUL-ADRIAN
Examiner	Art Unit	
Michael t Tran	2818	<i>Pat</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 30 October 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 1-15 is/are allowed.

6)  Claim(s) 16-19 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1003.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date.       .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other:       .

## DETAILED ACTION

1. In response to the Communications dated October 30, 2003, claims 1-19 are active in this application.

### ***Information Disclosure Statement***

2. The information disclosure statement filed October 30, 2003 has been considered.

### ***Claim Rejections – 35 U.S.C. § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 16-18 are rejected under 35 U.S.C 102(e) as being anticipated by Pasotti et al. [U.S. Patent #6,660,585].

With respect to claim 16, Pasotti et al. disclose a programming circuit for programming a memory cell, the memory cell having two or more transistors electrically connected such that their channel regions are contiguous, comprising: a current mirror circuit [17 of figure 2] that forms a current mirror with a first transistor of the memory cell to provide a constant current through the first transistor of the memory cell; and a data dependent voltage supply connected to said memory cell. It is noted that any transistors within figure 2 can be interpreted as being a “memory cell”.

With respect to claim 17, Pasotti et al. disclose in the “Detailed Description of the Invention” section that the data dependent voltage [programming voltage] is supplied to the first transistor.

With respect to claim 18, Pasotti et al. disclose that the current mirror circuit comprising: a transistor that is substantially similar to the first transistor; and a constant current source. See figure 2.

5. Claim 19 is rejected under 35 U.S.C 102(e) as being anticipated by Lee et al. [U.S. Patent #6,660,585].

With respect to claim 19, Lee et al. disclose a method of charging a charge storage unit of a transistor to a target level, comprising: producing hot electrons to charge the charge storage unit; reducing the production of hot electrons in response to the charging of the charge storage unit such that hot electrons cease to be produced as the charge level approaches the target level. See column 2, lines 1-25.

***Allowable Subject Matter***

6. Claims 1-15 are allowable over the prior art of record.
7. The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art of records does not show (in addition to the other elements in the claim) the following:
  - ❖ Reducing hot electron generation, without changing the programming voltage or the constant current, in response to increasing charge level of the charge storage unit such that generation of hot electrons ceases, or substantially ceases, when the level of charge in the charge storage unit reaches within a margin of the predetermined level.
  - ❖ Applying a data-dependant voltage to the source of the first transistor sufficient to initially produce hot electrons in the first transistor for programming the charge storage unit so that as the charge storage unit becomes charged hot electron production is reduced and charging of the charge storage unit is reduced.

***Conclusion***

8. When responding to the Office action, Applicants are advised to provide the Examiner with line and page numbers of the application and/or references cited to assist the Examiner in the prosecution of this case.
9. Any inquiry concerning this communication or earlier communications from

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the Examiner should be directed to Michael T. Tran whose telephone number is (571) 272-1795. The Examiner can normally be reached on Monday-Thursday from 7:30-6:00 P.M.

10. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1650.



Michael T. Tran  
Art Unit 2818  
June 25, 2004